

FIG. 2.

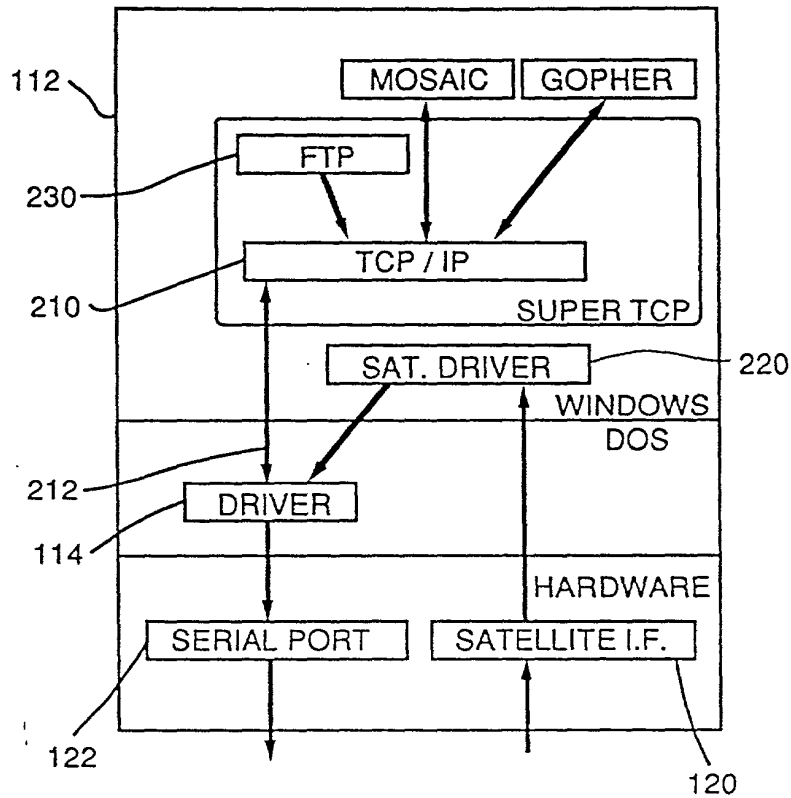


FIG. 3.

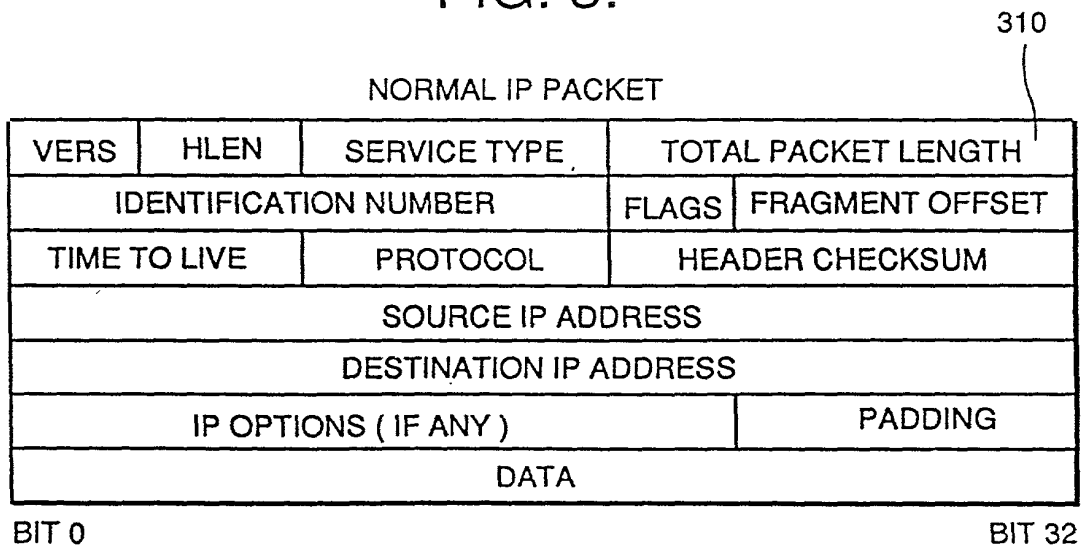


FIG. 4.

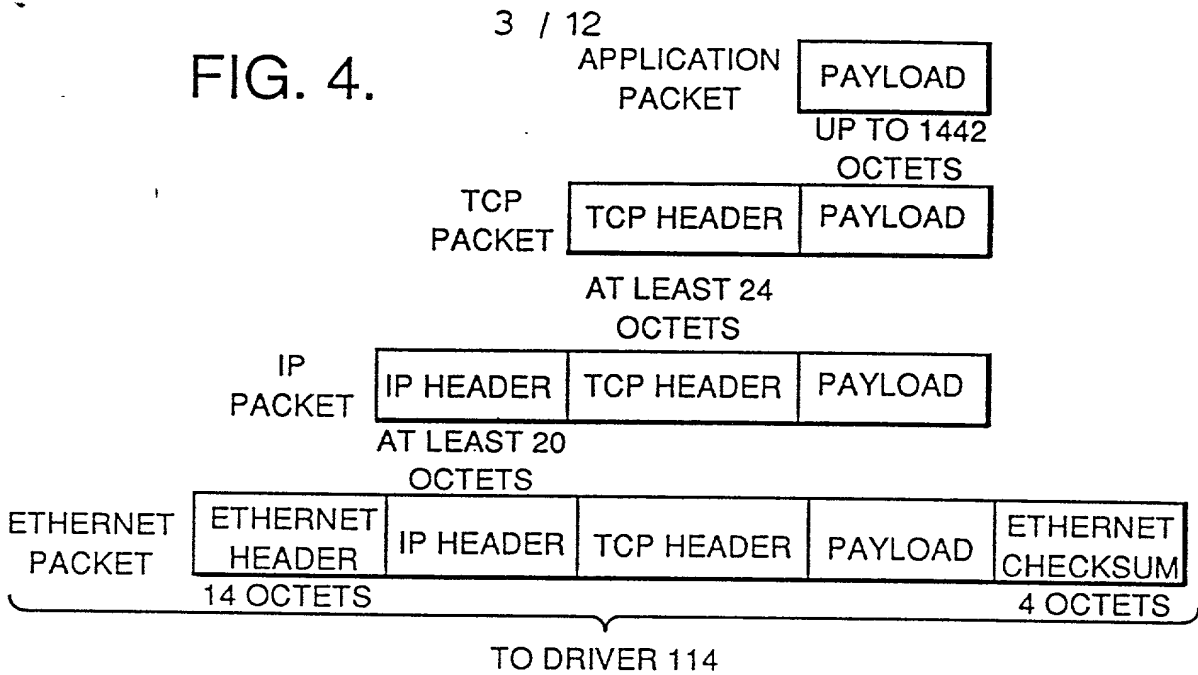
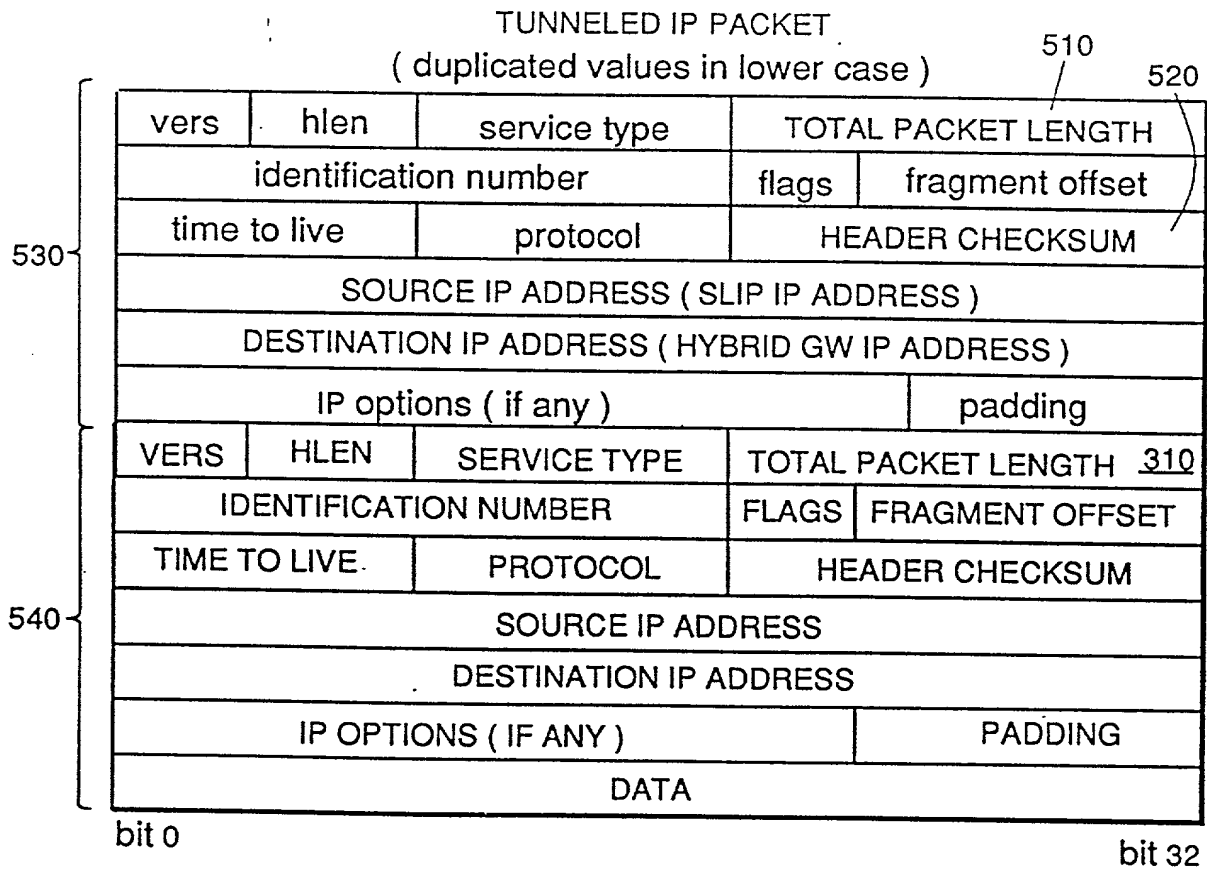


FIG. 5.



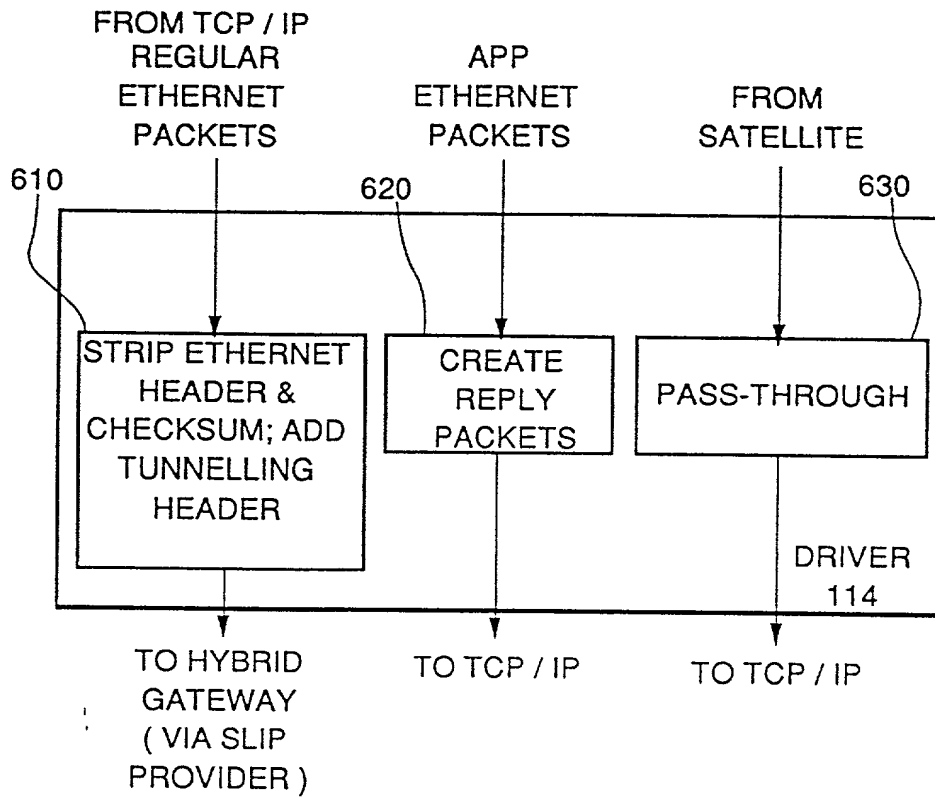


FIG. 6.

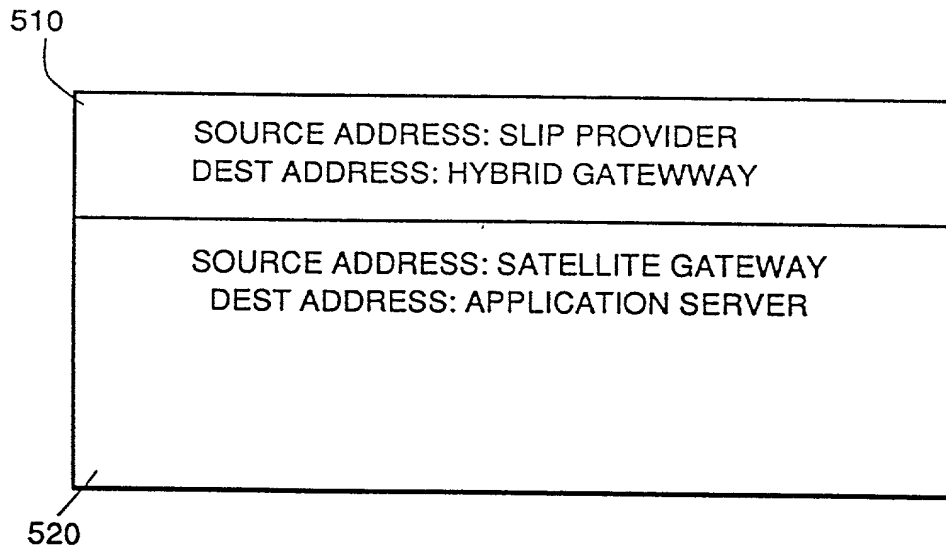


FIG. 7.

FIG. 8.

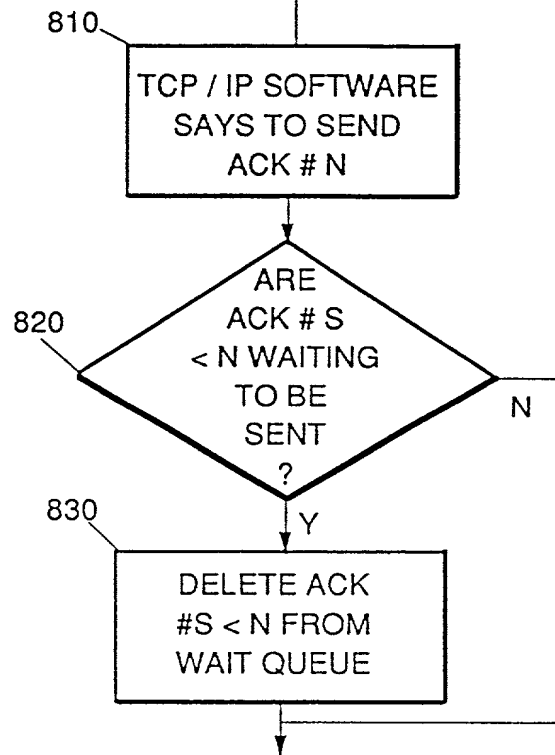


FIG. 9.

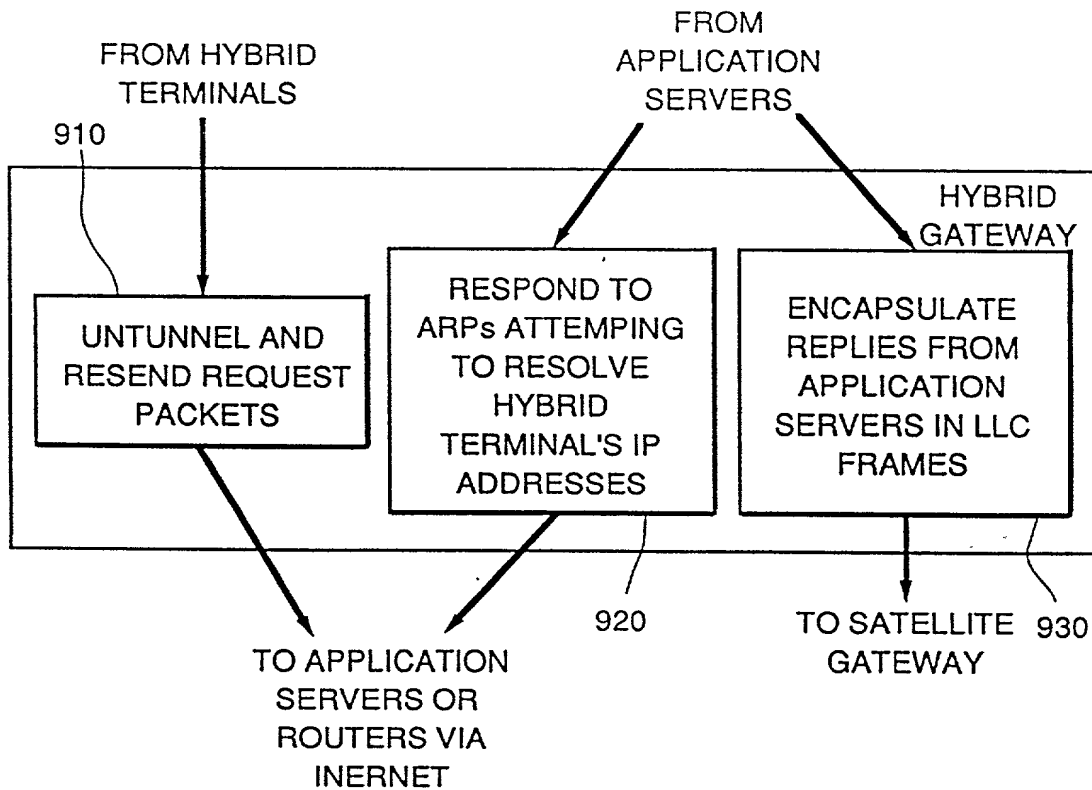


FIG. 10.

| 1030 | 1020 | 1010 |
|--|--|---|
| LLC HEADER | SATELLITE HEADER | IP DATAGRAM (PAYLOAD) |
| DELIVERS PACKET TO SATELLITE GATEWAY STRIPPED OFF IN SATELLITE GATEWAY | USED TO ID CORRECT RECEIVER TERMINAL STRIPPED OFF IN BIC DRIVER IN USER TERMINAL | DESTINED FOR TCP/IP PACKAGE IN USER TERMINAL |

FIG. 11.

| | | | | | | |
|------|------------------------|----------|-----------|--------|------------------|----|
| | 0 | 4 | 10 | 16 | 24 | 31 |
| 1102 | SOURCE PORT | | | | DESTINATION PORT | |
| | SEQUENCE NUMBER | | | | | |
| | ACKNOWLEDGEMENT NUMBER | | | | | |
| 1104 | HLEN | RESERVED | CODE BITS | WINDOW | | |
| 1106 | CHECKSUM | | | | URGENT POINTER | |
| | OPTIONS (IF ANY) | | | | PADDING | |
| | DATA | | | | | |
| | ... | | | | | |
| | TCP PACKET | | | | | |

FIG. 12.

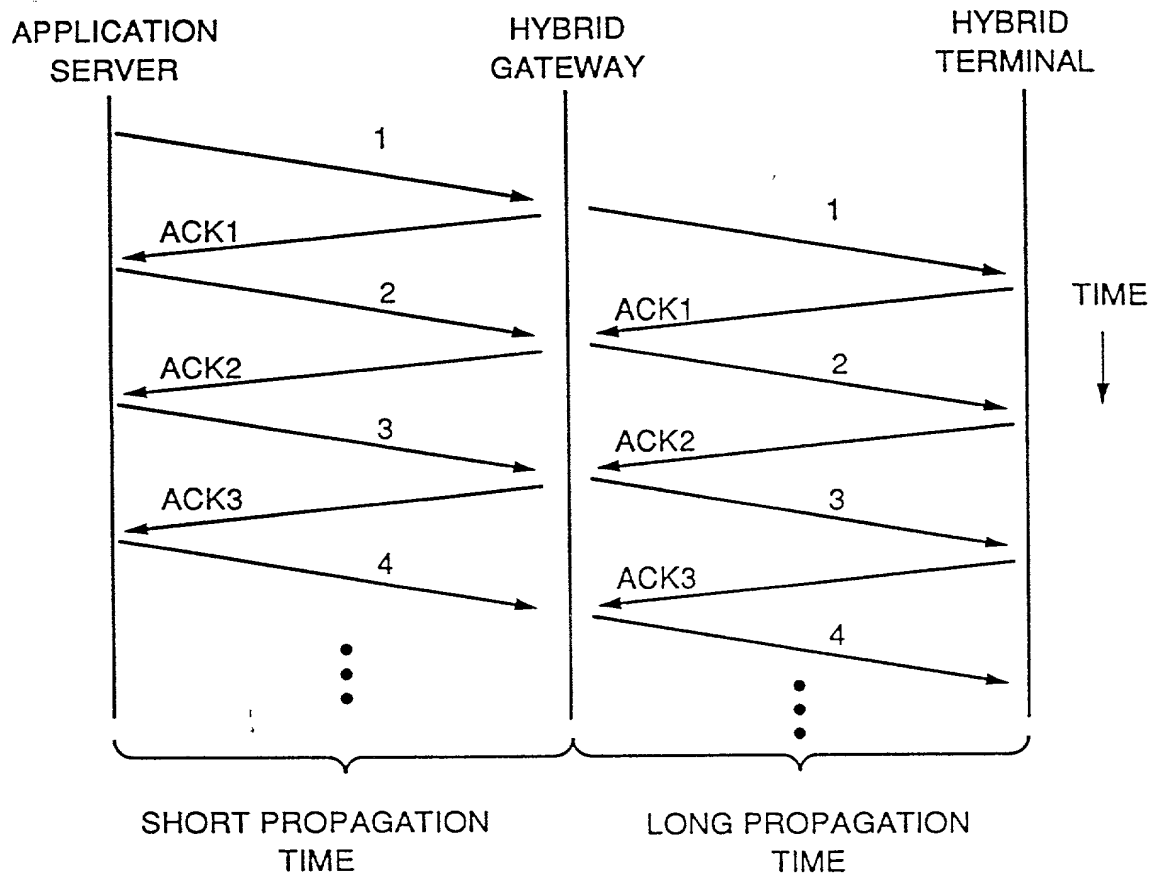


FIG. 13a.

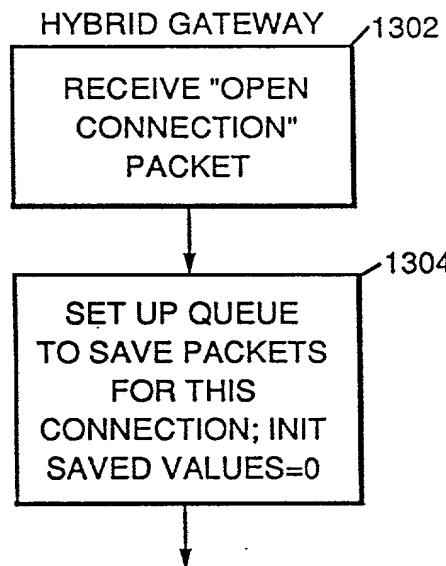


FIG. 13b.

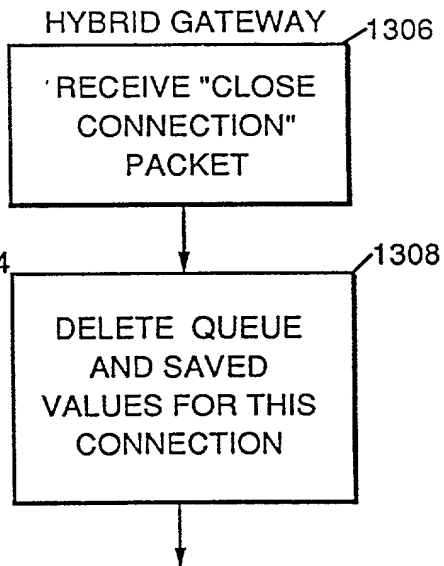


FIG. 13c.

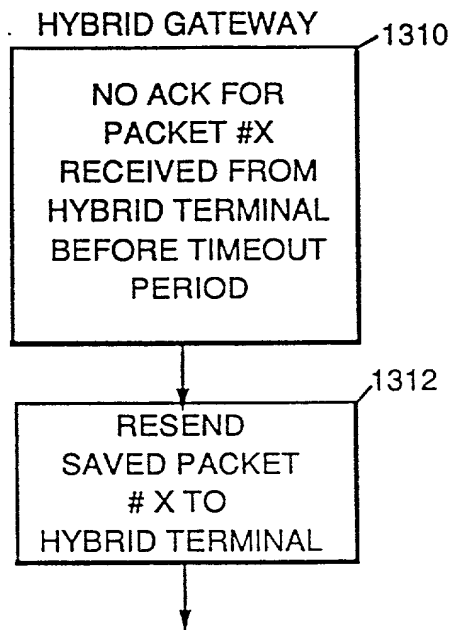


FIG. 13d.

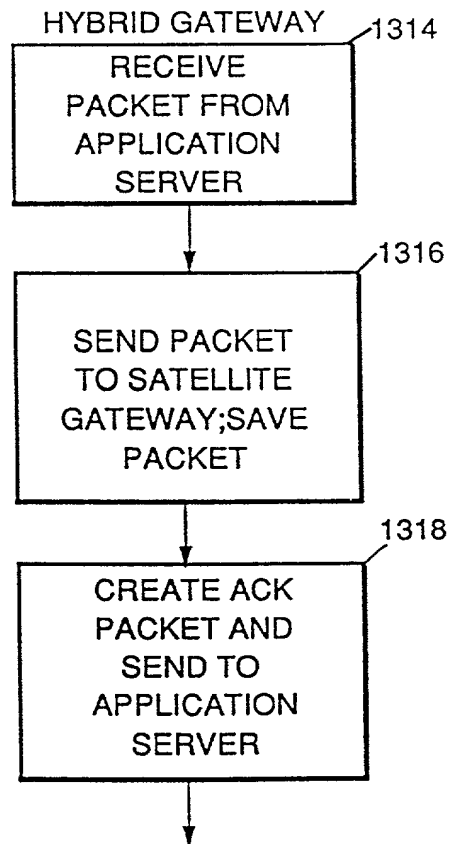


FIG. 13e.

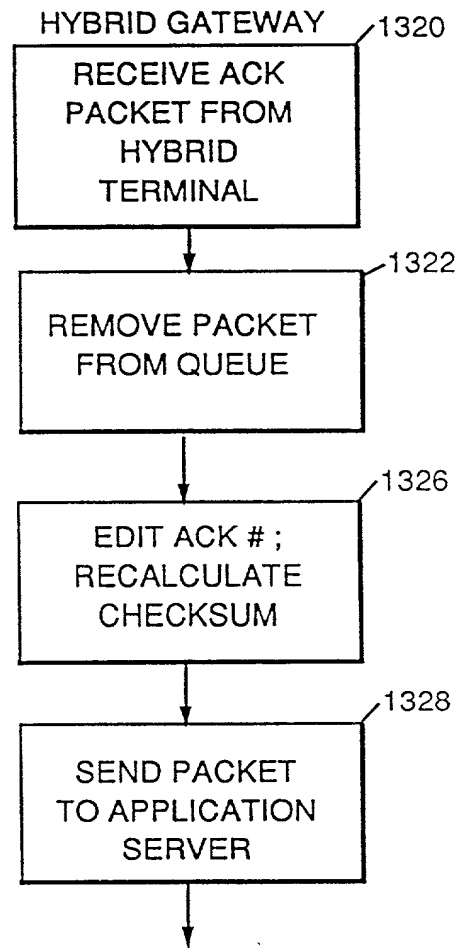


FIG. 13

1410

Terrestrial Telnet Enable: ☐ Select All (except **)

| | | |
|-------------------------------------|-------------------------------|------|
| <input type="checkbox"/> | Domain Name System | (53) |
| <input checked="" type="checkbox"/> | Finger | (79) |
| <input checked="" type="checkbox"/> | Ping | (NA) |
| ** | Simple Mail Transfer Protocol | (25) |
| <input checked="" type="checkbox"/> | Telnet | (23) |

Application Name

Protocol: ☒ TCP/UDP ☐ Other

Port Id:

Protocol Id:

1412

Help

Cancel

Add

Delete

OK

FIG. 14

| | | | | |
|-------------------------------|--------------------------------|-----------------------|---------------------|--------------|
| DA = application server | SA = satellite interface | IP header checksum | TCP/UDP checksum | Request Data |
|-------------------------------|--------------------------------|-----------------------|---------------------|--------------|

FIG. 16A: ORIGINAL REQUEST PACKET

| | | | | | | | |
|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------|---------------------|-----------------|
| new DA = hybrid gateway | new SA = SLIP provider | new IP header checksum | DA = application server | SA = satellite interface | IP header checksum | TCP/UDP checksum | Request Data |
|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------|---------------------|-----------------|

FIG. 16B: TUNNELED SATELLITE REQUEST PACKET

| | | | | |
|-------------------------------|--------------------------------|--------------------------------|------------------------------|--------------|
| DA = application server | (new) SA = SLIP provider | (new) IP header checksum | (new) TCP/UDP checksum | Request Data |
|-------------------------------|--------------------------------|--------------------------------|------------------------------|--------------|

FIG. 16C: TERRESTRIAL REQUEST PACKET

| | | | | |
|-----------------------|-------------------------------|-----------------------|---------------------|--------------|
| DA = SLIP provider | SA = application server | IP header checksum | TCP/UDP checksum | Request Data |
|-----------------------|-------------------------------|-----------------------|---------------------|--------------|

FIG. 16D: TERRESTRIAL REPLY PACKET

| | | | | |
|--------------------------------------|-------------------------------|-----------------------|---------------------|--------------|
| (new) DA = satellite interface | SA = application server | IP header checksum | TCP/UDP checksum | Request Data |
|--------------------------------------|-------------------------------|-----------------------|---------------------|--------------|

FIG. 16E: MODIFIED TERRESTRIAL REPLY PACKET

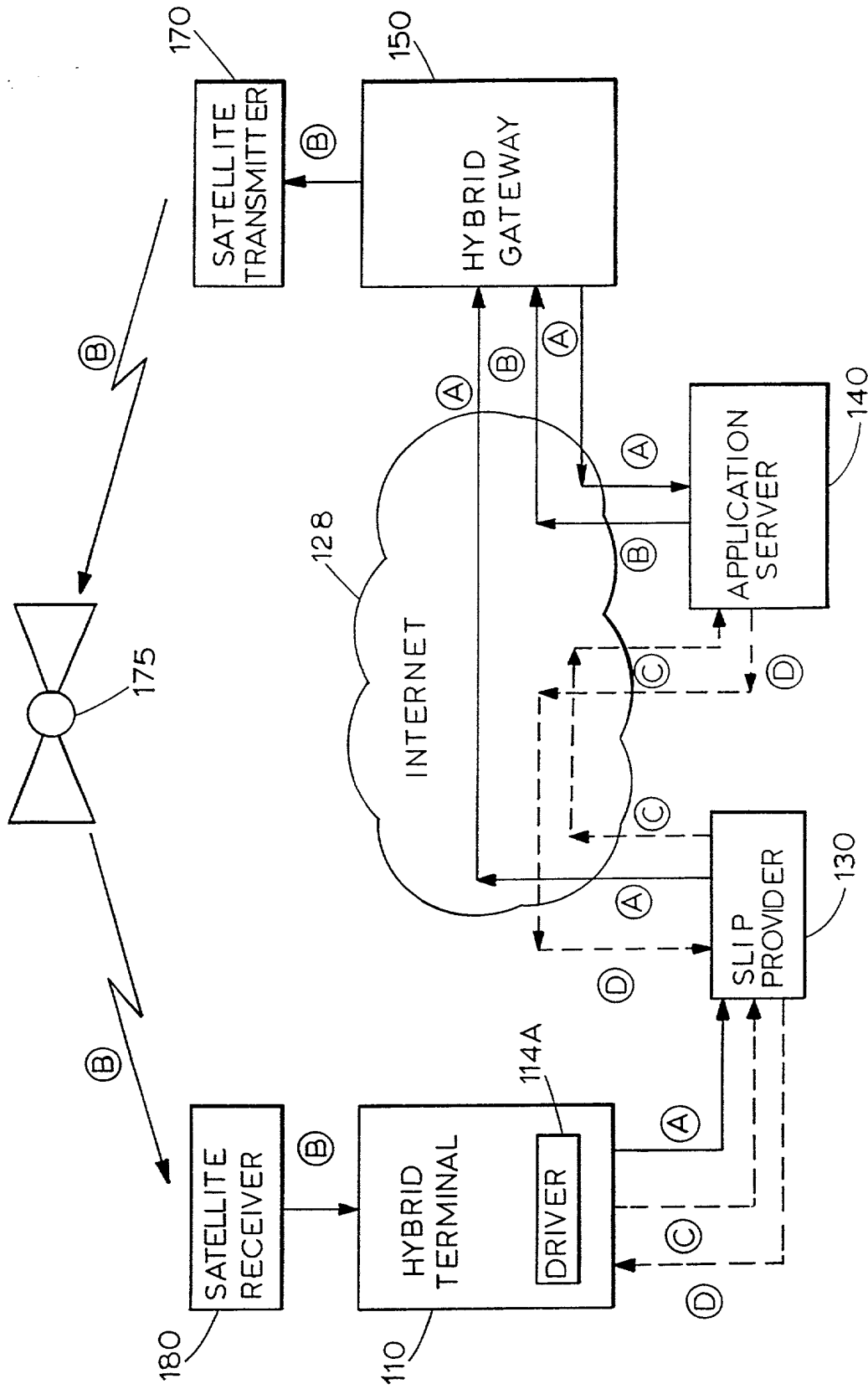


FIG. 15

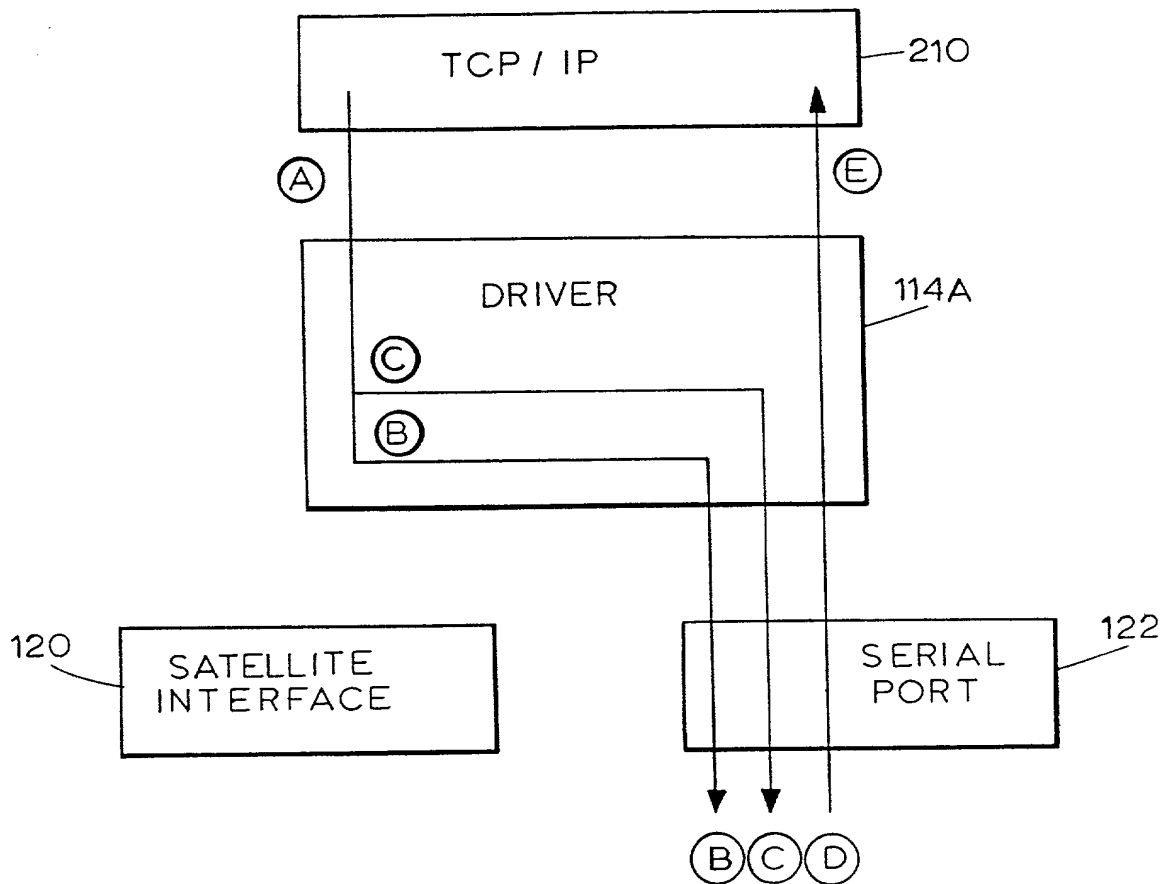


FIG. 16